

CLAIMS:

1. The DNA sequence 5'-CTCCTCCATGGTTATAAGGG-3' (SEQ ID NO: 9).
2. The DNA sequence 5'-CCCAGAGTAAGAACATTATTC-3' (SEQ ID NO: 10).
3. A variant paraoxonase protein having a substitution of isoleucine by valine, as coded by the codon 102 of exon 4 of the *PON1* gene.
4. The variant protein according to claim 3 comprising the amino acid sequence of SEQ ID NO: 2.
5. A capturing probe which comprises a single stranded polynucleotide comprising a nucleotide sequence encoding a variant human paraoxonase protein having a substitution of isoleucine by valine at the residue corresponding to position 102 of SEQ ID NO. 4.
6. A capturing probe which comprises a single stranded polynucleotide comprising a nucleotide sequence encoding a human paraoxonase protein.
7. A kit or assay comprising means for determining the presence or absence in a serum sample of a variant protein of claim 3.
8. A transgenic non-human animal comprising a human DNA sequence comprising a nucleotide sequence encoding a variant paraoxonase protein having a Ile102Val substitution.
9. A method of phenotype-targeted gene sequencing and other mutation search methods, in which DNA samples of subjects are selected on the basis of phenotypic measurements of a protein concentration or enzyme activity of the protein encoded by the gene to be sequenced.